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EXAMINER

BASHORE, ALAIN L

ART UNIT PAPER NUMBER

1762

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/811,065

Applicant(s)

HAINES, JAY A.

Examiner

Alain L. Bashore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2006 and 28 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-23 and 30-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-23 and 30-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendments***

1. The supplemental amendment filed 6-28-06 is hereby acknowledged.
2. The rejections under 35 U.S.C. 112 and 35 U.S.C. 102(b) has been withdrawn.
3. The rejections under 35 U.S.C. 103(a) of Claims 18-19 unpatentable over Krauthauser in view of Tsuda or Slama, of Claims 31-32 over Krauthauser in view of Abe or Gilli, of Claim 33 over Krauthauser in view of Shelley, of Claim 35 over Krauthauser in view of Beckenhauer, of Claims 34-35 over Krauthauser in view of SUPER COTE TEXTURED PRIMER technical data sheet, and of Claims 18-19 over Yanagimoto in view Tsuda or Slama, are all withdrawn.
4. The declaration under 37 CFR 1.132 filed 5-5-06 is sufficient to overcome the rejection of claims based upon the reference "There Goes the Sun". The reference "There Goes the Sun" is withdrawn from all rejections under 35 U.S.C. 103(a).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 – 3, 5- 17, 20 – 23, 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sliwinski et al in view of ( Krauthauser et al. or Yanagimoto et al).

Sliwinski et al. teaches a method of reducing energy consumption in a building (Col.2, lines 50 - 56, Col.10, lines 8 - 18), comprising painting the building with a heat / IR reflective paint comprising at least one heat reflective metal oxide pigment (Abstract, Col.1 , lines 10 - 16, Col.2, lines 25 - 56, Col.3, line 20 - Col.5, line 37, Examples 1 - 21, and Col.10, lines 1 - 18), wherein the surface temperature of the coated architecture / building is lowered such that less energy is consumed to cool the interior of the building (Col.2, lines 50 - 56, Col.10, lines 8 - 18). While Sliwinski et al. does teach that the paint compositions are specifically used for "architectural applications" where increased IR reflectance would result in lower heat buildup and lower energy costs (Col.2, lines 50 - 56, Col.10, lines 8 - 18), Sliwinski et al. does not explicitly teach applying / coating the paint onto the external vertical walls of a building.

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Krauthauser et al. teaches that heat reflective paints are used to coat the exterior facade (i.e., external vertical wall(s)) of buildings (Co1.5, lines 3 - 35) in order to reduce the amount of generated heat. Similarly, Yanagimoto et al. teaches that heat / IR reflective paints are used to coat the outer walls of buildings (i.e., the external vertical walls) of the building) in order to prevent the temperature of the rooms inside the building from rising (Col.1, lines 5 - 55, Col.2, lines 1 - 20).

Therefore, based on any of the above teachings, it would have been obvious to one of ordinary skill in the art to paint the external vertical walls of a building with the paint of Sliwinski et al. in order to reap the benefits disclosed by Sliwinski et al. (i.e., lowering the surface temperature of the building so that less energy is consumed to cool the interior of the building). By coating the external walls of the building, one of ordinary skill in the art would have reasonably expected to maximize the positive result achieved due to the heat / IR reflective paint (i.e., because the more of the building that is painted, the more heat reflection is achieved).

Sliwinski et al. also teaches metal oxide pigments and solid solution having a corundum-hematite crystal lattice structure (Abstract, Col. 2, lines 25 - 56, Table 1 , Col.4, lines 23 - 59, and Examples 1 - 21); the coated wall reflects light having the IR wavelengths claimed by the applicant (Claims 6 - 11) (Examples 1 - 21 and Figures 1 - 3); the IR reflectance is within the ranges claimed by the applicant (Claims 12 - 14)

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(Figures 1 - 3; Col.8, line 19); and the heat reflective wall paint is a dark color such as black, green, red, blue, etc. (Claims 15 - 17) (Col.8, lines 15 - 21, Tables 2 and 3).

Regarding Claims 20 - 23, Sliwinski et al. does not explicitly teach that the surface temperature of the coated wall is lowered by at least 200 F, at least 300 F, at least 400 F, and/or at least 500 F, as recited in Claims 20 - 23. Specifically, Sliwinski et al. is silent regarding the amount of temperature reduction the coated walls) experience. However, the process of Sliwinski et al. (i.e., applying a heat / IR reflective paint comprising heat reflective metal oxide pigments) to a building) is the same as the applicant's claimed process, and the amount of IR or heat radiation reflected by the paint of Sliwinski et al. is in the range disclosed and claimed by the applicant.

7. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sliwinski et al in view of ( Krauthauser et al. or Yanagimoto et al) as applied to claims above, and further in view of Tsuda et al or Slama.

Sliwinski et al. is silent regarding the solids content of the paint.

Tsuda et al. teaches that the solids content of a paint is usually adjusted to between 20 and 90% (i.e., a range which encompasses the claimed range) on the basis

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of the paint and varies depending on the form of the paint, coating method, etc. (Col.14, lines 8 - 35). Slama teaches that paint solids can be described in weight percent solids or volume percent solids; the percent solids is related to the thickness of the dried film; and the viscosity of the paint is determined by the percent solids (Col.1 , lines 3 - 37). The solids content of the paints taught by Slama fall within the range claimed by the applicant (see Examples 1 - 5 on Cols. 5 - 8).

Therefore, both Tsuda et al. and Slama teach that the solid content of a paint is a result / effective variable that is influenced by factors such as the form of the paint, the coating method, the desired thickness of the dried paint coating, and the viscosity of the paint.

As such, it would have been obvious to one of ordinary skill in the art to optimize the solids content of the paint of Sliwinski et al. as a result / effective variable through routine experimentation depending on the desired viscosity, coating method, and thickness of the dried paint coating.

8. Claims 30 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sliwinski et al in view of ( Krauthauser et al. or Yanagimoto et al) as applied to claims above, and further in view of Krauthauser et al. and Dainippon (JP '406).

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Sliwinski et al. does not teach a method comprising applying a primer to the wall(s) before applying the heat reflective paint.

Krauthauser et al. teaches that it was known in the art to apply a primer to a surface prior to applying a heat reflective paint analogous to that of Sliwinski et al. (Col.5, lines 9 - 16), and Dainippon teaches that it is desirable to apply a primer to the walls of buildings before painting the buildings in order to enhance the adhesion properties (Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art to apply a primer to the walls prior to applying the heat reflective paint of Sliwinski et al. in order to reap the benefits taught by Dainippon (i.e., enhance adhesion to the walls due to the primer). Regarding Claim 34, all coatings, including primers, have some sort of surface texture (e.g., smooth, fine roughness, high roughness, etc.). Therefore, the primer of Krauthauser et al. and Dainippon is reasonably considered to be a "textured primer".

9. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sliwinski et al in view of ( Krauthauser et al. or Yanagimoto et al) in view of Krauthauser et al and Dainippon (JP '406).as applied to claims above, and further in view of Abe et al or Gilli.

The combination of references do not teach a method wherein the primer is white (i.e., achromatic and reflects all visible light wavelengths, which is the definition of "white"). Specifically, Krauthauser et al. is silent regarding the color of the primer. Therefore, one of ordinary skill in the art would have been motivated to seek-out and use a primer color conventionally known in the art of painting. Gilli teaches that such a primer color is white (Abstract, Col.1, lines 30 - 36).

It would have been obvious to one of ordinary skill in the art to utilize any conventionally known primer color, including white, as the primer with the reasonable expectation of success and obtaining similar results (i.e., providing a heat / IR reflective colored paint on a wall, regardless of the color of the primer). Alternatively, Abe et al. teaches that a white or grey primer is preferred in the art of painting because it is easy to insure that the colored top-coat appears to be the proper color, regardless of the thickness of the top-coat (Abstract, Col.3, lines 45 - 54, Col.7, lines 1 - 13).

Therefore, it would have been obvious to one of ordinary skill in the art to utilize a white or grey primer in the method in order to reap the benefits taught by Abe et al. (i.e., allowing the colored IR reflective paint to appear to be the desired color due to the presence of the white or grey undercoat / primer).

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10. Claims 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sliwinski et al in view of ( Krauthauser et al. or Yanagimoto et al) in view of Krauthauser et al and Dainippon (JP '406).as applied to claims above, and further in view of Shelley et al.

The combination of references teaches all the limitations set forth above, except for a method wherein the primer is applied with a wet thickness of 16 to 20 mil. Specifically, Krauthauser et al. is silent regarding the primer thickness.

Shelley et al. teaches that, in the art of primer coating, optimal adhesion of the paint coating is a function of its thickness. A minimum primer thickness is required to insure that (1) underlying visual features do not bleed through" the coating and (2) a desired amount of protection is achieved. A maximum primer thickness is also specified (e.g., to insure that too much primer is not applied) (paragraphs (0002) - (0006)). In other words, Shelley et al. teaches that the primer coating thickness is a result / effective variable that should be optimized to insure that (1) underlying visual features do not "bleed through" the coating (2) a desired amount of protection is achieved, and (3) optimum adhesion is achieved, while also insuring that too much primer is not applied.

Therefore, it would have been obvious to one of ordinary skill in the art to optimize the wet thickness, and therefore the dry thickness, of the primer coating as a

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result / effective variable through routine experimentation in order to balance the factors discussed by Shelley et al. (i.e., adhesion, protection, bleed-through, etc.)

11. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sliwinski et al in view of ( Krauthauser et al. or Yanagimoto et al) in view of Krauthauser et al and Dainippon (JP '406).as applied to claims above, and further in view of Beckenhauer.

The combination of references teaches all the limitations set forth above, except for a method wherein the primer is applied at approximately 50 - 60 square feet / gallon. Specifically, Krauthauser et al. is silent regarding the amount of primer per unit surface of coverage.

Beckenhauer teaches that, in the art of applying a coating to a building material, the solution is typically applied at about 40 - 200 square feet / gallon (i.e., a range encompassing the claimed range), but the precise amount will vary depending on factors such as (1) the ambient temperature, (2) the viscosity of the coating material, and (3) the nature (porosity) of the surface to be coated. A surface with high porosity requires more coating per square foot than a surface with low porosity does (Col.6, lines 18 - 38). In other words, Beckenhauer teaches that the amount of coating material required per unit area is a result / effective variable that depends on factors such as the ambient temperature, viscosity of the coating, and especially the porosity of the

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surface to be coated.

It would have been obvious to one of ordinary skill in the art to optimize the "square feet / gallon" surface coverage rate of the primer as a result / effective variable through routine experimentation. The exact amount of primer required per unit area would, of course, be dependent on the nature of the primer (viscosity, etc.) and the surface to be coated (i.e., how porous the surface is).

12. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sliwinski et al in view of ( Krauthauser et al. or Yanagimoto et al) in view of Krauthauser et al and Dainippon (JP '406).as applied to claims above, and further in view of SUPER COTE TEXTURED PRIMER technical data sheet (11/2003).

The combination of references teaches all the as set forth above, except for a method wherein the primer is "textured" and applied at approximately 50 - 60 square feet / gallon. Specifically, Krauthauser et al. is silent regarding the specific nature of the primer.

The technical data sheet teaches a textured primer that is applied at 45 - 60 square feet per gallon "Application" section of data sheet) (i.e., within the applicant's claimed range) and has the following advantages: low VOC, water-based, stain blocking additives, hides irregular surfaces, and use on a variety of

substrates ("Description", "Features", and "Benefits" section of the data sheet).

Therefore, it would have been obvious to one of ordinary skill in the art to utilize the SUPER COTE TEXTURED PRIMER as the primer in the process with the reasonable expectation of successfully and advantageously reaping the benefits of the primer disclosed in the data sheet and discussed above.

### ***Response to Arguments***

13. Applicant's arguments filed of record have been fully considered but they are not persuasive.

The declaration filed on 5-5-06 under 37 CFR 1.131 is convincing for the argument of a specific property for the corundum-hermatite crystal lattice structure itself. But the primary reference is shown to include this material, and there is no showing in the declaration (or applicant's remarks) as to why what is disclosed in the primary reference does not inherently provide the claimed recited property. The pigment disclosed in the secondary references is not substituted for what is disclosed in the primary reference. The secondary references are combined for the recitation of painting onto external vertical walls only. The property of surface temperature reduction is already disclosed in the primary reference.

The declaration filed on 5-5-06 under 37 CFR 1.131 is not convincing to show expected or unobvious results regarding energy savings. The energy savings are not comparable to what can be demonstrated by the invention to Sliwinski et al.

Regarding the term "façade", the definition is taken in the broadest possible meaning to be defined as "the face of a building", which encompass exterior vertical walls.

Regarding expectation of success, there is shown in the primary reference having the components as claimed and the position of inherency of the claimed property. Regarding to paint outside walls per se, the expectation and motivation to one with ordinary skill in the art to provide a protective / aesthetic effect for painting an exterior vertical wall.

### ***Conclusion***

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alain L. Bashore whose telephone number is 571-272-6739. The examiner can normally be reached on about 7:30 am to 5:00 pm (Mon. thru Thurs.). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Alain L. Bashore  
Primary Examiner  
Art Unit 1762